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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,510	12/11/2003	Hitoshi Kato	03742 /LH	5836
1933	7590	12/29/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			WARREN, DAVID S	
220 Fifth Avenue			ART UNIT	
16TH Floor			PAPER NUMBER	
NEW YORK, NY 10001-7708			2837	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.D

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/735,510	KATO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David S. Warren	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/11/03</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 8, 10, 12, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 5, it is not understood (nor does the specification clarify) what is meant by "evaluates performance of the music data every predetermined number of notes." Does it mean that every, say, fifth note is evaluated? Or that notes one through five are evaluated? Or that the notes are evaluated in groups of five? (The Examiner is using five notes merely as an example.) For the rejection below, the Examiner is interpreting this to mean that all notes of a performance are evaluated in groups of a "predetermined number." Regarding claim 8, it is not clear as to what is meant by "the tendency of sound periods of sound events contained in the music data." What are the sound periods and how do they have a tendency? Clarification is required. Regarding claim 10, it is not clear as to how comparing the current performance with a previous performance can be used to evaluate the current performance (it would seem that the current performance would need to be evaluated in order to be compared with the previous performance). Regarding claims 12 and 16, it is not clear (the specification does not clearly explain)

what is meant by providing support to the evaluation result. The examiner questions the use of the phrase "support providing," would "processing" be more accurate (i.e., "a processing unit for processing the result of evaluation...")? Clarification is required. Also, in claims 12 and 16, it is not clear as to what is meant by "non [sic] of the notes to be played in the evaluation period is played." Does the Applicant mean played by the musician or played by the apparatus?. For the purposes of the rejection below, the Examiner interprets this to notes played by the musician.

3. The Examiner recommends that the Applicant review the claim language and make any changes to improve grammar and to include, where possible, correct idiomatic English. For example, while the term "vanish" is used in the claim language and is marginally acceptable, perhaps the term "terminate" would be better. While this is not required, it would be appreciated.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 4, 6, 7, 9, 11, and 12 - 20 rejected under 35 U.S.C. 102(b) as being anticipated by Sitrick (6,084,168). Regarding claims 1, 3, 17, and 20, Sitrick disclose the use of a reference-performance data supplying unit (fig. 2A; fig. 2E), an actual-

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performance data supplying unit (280, fig. 2E), a reference on-period for extracting on-periods, i.e., the period between note-on and note-off, (the time between note-on and note-off is the note duration; Sitrick teaches detecting duration, col. 11, lines 29 – 34), a real on-period (Sitrick teaches comparing the real and actual durations; col. 11, lines 29 – 34), and a judging, comparing, and evaluation score calculating unit (col. 11, 3<sup>rd</sup> and 4<sup>th</sup> paragraph). The act of adding or subtracting evaluation points (in claim 3) is deemed to be functionally equivalent to Sitrick's "graded score." For pitch and timing comparison and evaluation see Sitrick col. 11, lines 29 – 34). Regarding claim 2, the composition used in the Sitrick invention is stored in a library (120) and selected by a user (210, fig. 2A), the time between note-on and note-off (i.e., the duration) would inherently be stored in a memory (i.e., the library, see second sentence of Abstract) and read out (music reproduced without the proper durations would not be useful).

Regarding claims 4, 11, and 16, all limitations have been discussed supra except for the period setting unit. Sitrick discloses the use of a period setting unit (col. 27, first paragraph). See element 284 (fig. 2E) as a display of an evaluation. Regarding claim 6, Sitrick shows the use of both time segmenting (col. 27, first paragraph) and period setting based on the composition (i.e., repeating sections; col. 11, lines 16 – 18) – both involve a "lapse of time." Regarding claim 7, Sitrick discloses the use of D.S. Coda and repeating difficult sections (col. 11, lines 13 – 14). The Examiner maintains that a D.S. Coda is contained within the music data and that a section is "difficult" because of the music (i.e., music data) being presented to the performer. Regarding claim 9, any segment of music will be shorter (in time) with a fast tempo and longer (in time) with a

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slower tempo. Regarding claims 12 – 15, (see §112 rejection above), all limitations have been previously discussed except the “non-performance detecting unit.” Sitrick discloses the use of comparing a musicians performance with a saved “virtual” performance and producing a “graded score” as to how well the musician played. The Examiner maintains that if the musician did not perform any notes (“non of the notes to be played is played” that the “graded score” would reflect an appropriate score. Furthermore, rhythm is a mixture of notes and rests (rests are synonymous with non-performance). For the Sitrick invention to provide a graded score on rhythm, there must be some way of determining the expected “non-performance” time between note-on events (as stated supra, the limitations of claim 12 are not clearly written and explained). Regarding claim 18, Sitrick discloses the use of timing of notess and duration of notess – this is deemed to meet the limitation of plural pitches and plural sound-generation events. Regarding claim 19, Sitrick discloses the use of setting and evaluating the timing of a performance (col. 11, lines 29 – 34) and the use of “predefined performance goals ” (col. 11, lines 34 – 36). The Examiner maintains that these “predefined performance goals” are ranges (i.e., within a time period) set by the system wherein a musician is expected to perform, i.e., playing within the limit results in a higher score, playing outside the limit results in a lower score.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 8, 10, and 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitrick in view of Chantzis (6,417,435). The teachings of Sitrick have been discussed supra. Regarding claim 5, as best as can be understood (see §112 rejection above), Sitrick does not teach the use of “evaluating every predetermined number of notes.” Chantzis discloses the use of evaluating a performance of, e.g., “Lydian scale in four octaves at a tempo of 70 beats per minute” (col. 10, lines 50 – 54). This is a predetermined number of notes (the Lydian scale in four octaves has 28 notes) which corresponds to 28/70 minutes (a time set predetermined time period). Regarding claim 8, as best as can be understood, the method by which the Applicant sets the period is deemed to be functionally equivalent Chantzis (it appears to be for the same purpose of limiting the amount of data which is to be compared against a performance by a musician). Regarding claim 10, Chantzis discloses the documenting of a performer when performance “has fallen below a pre-determined proficiency level.” The use of the term “fallen” indicates that performances are compared with previous performances (“fallen” implies “less than” a previous performance, i.e., a comparison between a current and previous performance). Regarding claims 13 – 15, like Sitrick, Chantzis

also discloses the evaluation of rhythm which necessitates the use of measuring a note-off region. Rhythm is deemed to be mixture of notes and rests (non-performance). If a user of the Chantzis system were to not play a note, the Chantzis device would indicate an error. This is considered to be functionally equivalent to Applicant's "non-performance state...is detected in which up to the minimum number of notes [in this case one] are note played among the predetermined number of notes...." It would have been obvious to one of ordinary skill in the art to combine the teachings of Sitrick and Chantzis to obtain a performance evaluation apparatus having period setting function for a specified number of notes and length of time and the use of comparing a user's performance with past performances. The motivation for making this combination is that by limiting the number of notes and length of time, decreased resource allocation is obtained (and by comparing to past performances, musicians can ascertain whether or not they have improved).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Taruguchi et al. (6,380,474), Jameson et al. (6,373,572), and document to Rosen (20010029830) all disclose Applicant's invention.

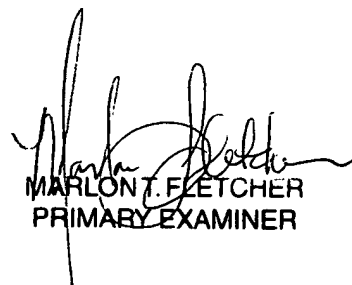
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw



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